

What is claimed is:

1. A method of manufacturing a semiconductor device, comprising:

a step of forming an oxidation proof layer including  
5 an aperture on a silicon substrate;

a step of forming a field oxide for a device  
isolation thermally oxidizing silicon at the aperture;

a step of depositing a protective layer thicker than  
a thickness of said oxidation proof layer on said  
10 oxidation proof layer and on said field oxide, said  
protective layer being composed of such a selective  
removable material as to establish a condition under which  
said oxidation proof layer is selectively removed;

a step of making said protective layer residual on  
15 only the surface of said field oxide by removing a part of  
said protective layer deposited in said depositing step  
till the surface of the said oxidation proof layer is  
exposed; and

a step of removing said oxidation proof layer.

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2. A method of manufacturing a semiconductor device  
according to claim 1, wherein said protective layer is  
composed of polysilicon.

3. A method of manufacturing a semiconductor device according to claim 1 or 2, wherein said step of removing the part of said protective layer is a step of executing a polishing process based on CMP (Chemical Mechanical Polishing).

4. A semiconductor device comprising:

a field oxide for a device isolation; and  
10 a layer formed on the surface of said field oxide,  
said layer being composed of such a selective removable material as to establish a condition under which a silicon nitride layer is selectively removed.

15 5. A semiconductor device according to claim 4,  
wherein said selective removable material is polysilicon.

PCT/EP2007/000269

Add a<sub>2</sub>

Add a<sub>3</sub>

Add b<sub>2</sub>

Add c<sub>2</sub>